

## **Learning and Practising Assessment in Pre-Service Teacher Education Program: Bridging Theory-Practice Gap**

### **Abstract**

*This paper responds to two research questions as part of a wider study: 1) How do prospective teachers learn about assessment in a pre-service teacher education program? 2) How do cooperative teachers and university teachers support prospective teachers on teaching practicum to learn about using assessment for bridging the gap between theory and practice? A sequential mixed method design was applied to collect data in two phases: a survey about the opinions of Prospective Teachers (PTs) and observations of classes in both teacher education and teaching practicum contexts were completed along with interviews and focus group discussion. The study concluded that PTs face difficulties in applying student-centred assessment practices because of limited modelling both in the teacher education and school practicum settings, large class sizes, lack of collaboration, insufficient time during the teaching practicum, and limited opportunities to use technology in school settings in Pakistan.*

**Keywords:** *Learning, practising, assessment, pre-service teacher education program, theory and practice*

### **INTRODUCTION**

#### **Establishing a need for reform in teacher education regarding assessment:**

It has been observed that modern methods of teaching and assessment techniques currently taught in pre-service teacher education programs to prospective teachers (PT) are not fully availed in practice for complex multiple reasons including the prevailing classroom situations in government schools as well as the role of university supervisors, cooperative teachers and those in school management positions of these placement schools. It has been argued that in Pakistani settings the training provided often fails to enable the PT to adapt learned assessment strategies and theoretical understandings of assessment to classroom situations and therefore,

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PTs tend to continue with traditional methods of assessment which negates the entire purpose of training (Naeemullah, Muhammad, Muhammad, Uddin, & Shafqat 2010). The alignment of curriculum, pedagogy and assessment is therefore very significant in bridging a potential gap between theory and practice when seeking to facilitate learning which promotes creativity, innovation and the solution of problems by the learners (Biggs, 1996; Anderson & Krathwohl, 2001; Brookhart, 2010; Azzam, (2009; Barahal, 2008). In the pre-service teacher education programs in Pakistan, by and large the alignment of curriculum, pedagogy and assessment has been ignored for multiple reasons (Iqbal & Anwer, 2014; Bashir, 2002). The majority of the teachers ask questions on their feet, and only measure the cognitive retention power of the students. Assessment of higher order thinking skills such as analysis, synthesis, evaluation and problem-solving are not given their due share in teaching and assessment (Iqbal, Anwer, 2014. Iqbal & Anwer (2014) conducted an exploratory study about the assessment practices used by university teachers on a B.ED (Hons) programme and revealed that intended learning outcomes were not aligned to assess all cognitive levels of Blooms' Taxonomy, curriculum objectives of the course were confined to 'Remembering' and 'Understanding' levels,.

This line of argument leads to identifying an issue in the preparation of PTs, if we consider how they themselves are being assessed in the development of their knowledge, understanding and practical competencies of developing classroom assessment practices. This paper explores the need and rationale of the assessment reforms required in teacher education programs, if theory is to be effectively adapted for practice in school teaching settings and subsequent reforms of classroom assessment practices in the schools in which the PTs develop their careers. This places a particular emphasis on the teaching practicum elements of PT programs and therefore the role of cooperative teachers (CP) in schools which partner with higher education Teacher Education Providers (TEPs) to offer opportunities for PTs to develop their practice and thus classroom assessment practices.

This article focuses on the findings related to a subset of the project's scope, focused on the following research questions:

- 1) How do prospective teachers learn about assessment in a pre-service teacher education program?
- 2) How do cooperative teachers and university teachers support prospective teachers on teaching practicum to learn about the use of assessment and bridging the gap between theory and practice?

## **RESEARCH METHODOLOGY**

A sequential mixed method design was applied to conduct this study by applying quantitative and qualitative approaches. The wider study, from which the data used in

this paper to address the above research questions was collected, consisted of two phases, with each phase supporting and guiding the next one. The first phase was quantitative in nature in which a survey was conducted by questionnaire. In the second phase, we also collected evidence of **the enacted curriculum** through observation of classes, interviews and Focus Group Discussion to gather data, albeit partial, about the **learned curriculum**. This helped to cross check the quantitative findings and collect richer information about the learning of assessment practices in relation to closing the gap between theory and practice. The decision to conduct interviews with teachers after analyzing the quantitative data was made pragmatically on the basis of apparent contradictions in the quantitative results towards a more reliable analysis of the data. Sources of triangulation in the study were the quantitative and qualitative responses of university teachers. According to Cohen and Manion (2008) triangulation is a technique that gives a balanced picture of human behavior in an unbiased and objective way.

### **Instruments of the study**

Baseline data collected from the content analyses helped to construct the survey questionnaire. One strand of these questions gained the views of PTs about the learning of assessment techniques to bridge the gap between theory and practice. The key constructs of the survey questionnaire were setting learning objectives, knowledge assessment, reflective-formative assessment, learning supportive assessment practices, feedback and asking questions. The constructs were reviewed and finalised by the experts after detailed discussion for the construction of items. 26 out of 56 items were finalised after the review by the research team. The three relevant experts validated the instrument and proposed some changes in languages, assessment terms and alignment with the key constructs. The instrument was pilot tested before its usage. Quantitative analysis guided in finalizing the major and sub-themes of the Interview guide and Focus Group Discussion.

Semi-structured interview and FGD schedules were formulated by the research team, in consultation with the wider steering group, to collect richer information about the situation from the perspectives of those involved in and experiencing the teacher education provision. This has helped to identify issues associated with the learning of assessment techniques and their application on teaching practicum by the PTs with the support and guidance provided by the UTs and CTs.

### **Population and setting of the study**

The setting of the study in Pakistan was three public sector universities and teacher education colleges, all running a B.ED 4 Years program for elementary education in Rawalpindi and Islamabad (Fatima Jinnah Women University, Rawalpindi, International Islamic University, Islamabad, Government Teacher Training College,

Islamabad). On this B. Ed (hons) program students go for practicum three times during different semesters to the cooperative schools associated with each institution. The Elementary Teacher Training Colleges, along with the universities, are the beneficiary partners of the project funded by HEC under British Economy Exchange Program. The data gathered during the project activities is adjusted in research articles as agreed with the funding agency. All the institutions including the Elementary Teacher Training College are running the same B.ED (Hon) program approved by HEC. Students of elementary Teacher Training College have also accomplished three practicum terms like the university students, and in this context, it is a homogeneous group for the survey approved by the national and international experts at the designing phase of the project.

### Sample of the study

Purposive and convenient sampling techniques were applied to select the sample of the study. PTs of the three partner institutions were selected for the survey questionnaires to gather quantitative data about learning and application of the assessment techniques. For this purpose, the survey questionnaire was administered to all the Pakistan-based PTs who were studying the ‘methods of teaching’ course and who had also completed three phases of their teaching practicum. Phase two was completed with an 80 item questionnaire used to survey the views and experiences of PTs in the three Pakistan-based TEPs, of the following numbers of prospective teachers:

**Table 1: Summary of data collected in Pakistan**

Sr.no	Name of Institution	Number of prospective teachers
1	Fatima Jinnah Women University	35
2	International Islamic University	42
3	Government College Elementary Teachers	32
<b>4</b>	<b>Total</b>	<b>109</b>

The analysis of quantitative data from this survey data clarified the themes and sub-themes for the semi-structured interview and Focus Group Discussion (FGD). Participants for the FGD were the heads of cooperating schools. Eight heads of institutions (4 male & 4 female) participated from Pakistani schools. Major and sub-themes were discussed with the five HoDs and two senior teachers in detail to draw findings and conclusions of the study. Eight UTs and eight CTs from the UK and Pakistan participated in the interview. A summary of the data collected in phase three of study is included in Table 2.

**Table 2: Summary of data collected in Pakistan and UK (UoL) about observation of teaching session and interview of prospective teachers**

	Pakistan		
	Session	Time	Participants
TEP Session observed	5	400 min.	230
School sessions observed	5	240 min.	440
University Teachers interviewed	8	255 min.	
School cooperative teachers interviewed	11	5	150 min.
School leaders	2	80 min.	

### Collection and analysis of data

The protocols agreed were then used to gain informed consent from all participants by sharing the ethical principles on which the study was based and briefing participants about the objectives of the study before gaining their participant in each data collection incidence/use of each research instrument. Responses for the questionnaire categories were fed into SPSS and descriptive statistics were applied by calculating percentages. The researcher tried to remain unbiased and controlled personal effects during interviews by an impartial attitude, at the same time observing the participants' pitch of voice and body language during interviews and jotted down as field notes. Thematic analysis was carried out by open coding, axial coding, analytical coding and selective coding.

### Phase 1: Analysis of Quantitative data

Data collected through self-administered questionnaires was fed into SPSS version 16 to calculate percentages. Items relevant to the research questions of this paper are summarized in Tables 10-14, which report only the percentage responses for the 'very useful' category on the Likert scale.

**Table 3: Importance of setting learning objectives and lesson planning (very useful)**

s.no	Item	Inst. A	Inst. B	Inst. C	Total
		%	%	%	%
1	Usefulness of setting learning objectives	27	20	29	25
2	I was taught how to set learning objectives	78	29	36	47
3	I understand what learning objectives are	34	29	41	34
4	I am competent to set learning objectives	16	11	17	14
5	Usefulness of planning lessons	44	60	55	53
6	I was taught how to plan lessons	69	29	50	49
7	My competence in planning lessons	25	29	36	30

The analysis of Table 10 revealed that PTs enrolled in the selected institutions of Pakistan do not report themselves as competent in lesson planning (30 %) and setting of objective (14 %) skills. They do not recognize or consider the usefulness of learning objectives (25 %) and lesson planning. Participants of institutions B and C

were of the view that they were not taught how to set learning objectives (29 %, 36 %). However, participants of institution B were of the view that they did not have sufficient opportunities to plan lessons (29 %).

**Table 4: Importance of questioning and summative assessment (very useful)**

s.no	Item	Inst. A %	Inst. B %	Inst. C %	Total %
8	Usefulness of questioning technique in learning	34	51	52	45
9	My competence to apply questioning technique	31	23	24	26
10	I was assessed on my knowledge, understanding and skills of methods of teaching	13	29	21	21
11	Usefulness of assessing pupils' work summatively	63	31	38	44
12	I was taught how to assess pupils' progress through summative assessment	47	29	43	39
13	My competence to assess pupils' work summatively	44	17	29	30
14	I understand the role of summative assessment	25	23	19	22

It is elicited from Table 11 that the participants of the three institutions were of the view that they had insufficient competence in applying questioning techniques and assessing pupils' work summatively. PTs reported that they did not consider that their curriculum taught them sufficiently how to assess pupils and were not clear about the role of summative assessment in learning and teaching. It was further identified that the majority of the participants disagreed with the statement that they were assessed on their knowledge, understanding and skills of method of teaching. Percentages below 50 show that teachers gave little importance to questioning and summative assessment.

**Table 5: Importance of formative assessment (very useful)**

s.no	Item	Inst. A %	Inst. B %	Inst. C %	Total %
15	Usefulness of assessing pupils' work formatively	50	31	21	34
16	I was taught how to assess pupils' progress through the use of formative assessment	25	34	41	33
17	My competence in assessing pupils' work formatively	50	17	26	31

Table 12 highlighted that, other than the 50% participants of institute A who agreed with the usefulness of formative assessment and their competencies in formative assessment, those in institutes B and C highlighted lower confidence and competences. Overall, participants highlighted that they were not taught how to apply formative assessment.

**Table 6: Importance of interview, portfolio and reflective journals (very often)**

s.no	Item	Inst. A %	Inst. B %	Inst. C %	Total %
18	I interviewed pupils and teachers at primary level	31	3	12	15
19	My teachers supported me in conducting interviews	16	11	19	15
20	I kept a reflective journal	38	9	24	23
21	I am competent to complete a reflective journal	19	23	14	18
22	I kept an assessment portfolio	47	37	45	43
23	My assessment portfolio was an effective way of supporting my learning	22	9	24	18

Table 13 showed that participants in all three institutions did not report an appreciation of the importance of interviews, portfolio and reflective journals and those with particularly low percentages.

**Table 7: Effectiveness of different methods for supporting students learn to teach (strongly agree)**

s.no	Items	Inst. A %	Inst. B %	Inst. C %	Total %
24	Usefulness of feedback from tutors as part of assessment	25	26	19	23
25	I was provided with feedback about my teaching	41	20	33	31
26	I was offered support in reflecting on classroom challenges between lessons	16	31	14	20

Table 14 highlighted that the majority of the participants reported that they were not offered sufficient support in reflecting on classroom challenges. They were less agreed about support provided through feedback and the usefulness of feedback.

## **Phase 2: Analysis of Qualitative Data including reflection on Quantitative findings**

The researcher interviewed eight UTs from the three institutions running B.ED (Hons) program in the universities and colleges located in the twin cities of Rawalpindi and Islamabad. Eleven PTs were also interviewed to cross check the views presented by UTs. It also includes reflection of UTs on the quantitative data collected from the PTs.

In the same manner, eight UTs and six PTs were interviewed from the UK. Eleven CTs were interviewed about how they support PTs in learning assessment techniques at teaching practicum. Data was recorded, transcribed, refined and validated before its interpretation to draw major themes and sub-themes of the study. This allowed a cross-cultural comparison to be carried out, to further contribute to the imagination of possibilities and appreciation of locally and culturally specific opportunities and

constraints on educational reform of PT preparation for classroom assessment practice. The themes which arose from this integration of quantitative and qualitative data were:

1. Challenges to assessment practices relating to PT recruitment
2. Introducing assessment techniques and their practice
3. Grade and accountability focused assessment
4. The role of assessment criteria
5. The nature of PT assignments
6. Support from cooperative teachers in learning about assessment
7. A dialogical approach to learning about assessment
8. The role of feedback

These themes can be divided into themes related to PTs (1), TEPs (2, 3, 4, 5, 6), cooperative schools (7) and themes which provide evidence for developing School-University collaborative provision (8, 9).

## **RESULTS & DISCUSSION**

### **1. Challenges to assessment practices relating to PT recruitment**

The first theme is a factor which is important to acknowledge in terms of the personal characteristics of the PTs themselves, which TEPs need to acknowledge and take into account. Intrinsic motivation to study and develop as a committed teacher cannot be assumed. The majority of the PTs reported about joining pre-service teacher education program as a second choice to their initial career choice either because of failure to get admission into engineering and medical subjects due to low grades in intermediate examination or, in the case of many of the female recruits in particular from the Northern Provinces, due to familial advice that this would be a safe profession to join. Out of eleven PTs interviewed: five intended to join the engineering or medical department, four joined due to influence of parents and family members, and only two of them opted for the teaching profession of their own choice as a respectable, noble and honourable profession that may help them to think, discover and invent.

### **2. Introducing assessment techniques and their practice**

Teacher educators use a range of assessment practices such as portfolio assessment, reflective journals, interview skill observation, computer based assessment, and peer assessment to assess students' learning in institutions in Pakistan, however, these



were not all reflected in the reported practices of this particular B.ED programme. The main tool planned into the program was the use by PTs of a reflective journal. This was valued by UTs as an important component that could enhance PTs' learning and application of assessment practices and was made mandatory for all students. One element for inclusion in these journals was the expectation to complete an analysis of the different types of lectures to draw conclusions on positive and negative aspects of each classroom technique introduced. However, the review of these student-centred assessment techniques were not regularly or systematically included in their teaching practice or the B.ED program. The reflective journal supported the UTs aim to equip the PTs with theoretical knowledge about these modern assessment techniques but did not contribute to the development of the skills to use such techniques and assess any progress in such application. The majority of PTs also viewed that assessment portfolio is also not effective to assess and support learning. The majority of the PTs also viewed that the CTs and UTs do not support and guide them to apply and practice interview skills for assessment purposes. As a result, PTs continue to practice the traditional assessment techniques (paper and pencil test) at teaching practicum that may not support and enhance learning of the learners, despite holding appropriate knowledge about a wider range of practices.

### **3. Grade and accountability focused assessment**

Teacher educators are aware that schools are assessed on the basis of grades that have been earned by their students as a result of annual examinations held by the examination boards. Schools display their results through print and electronic media, chalking on walls, and displaying banners to establish their worth in society. This is a high stakes assessment culture and parents and students pursue grades to get admission into the best professional colleges. However, grade focused assessment has led to the promotion of rote learning habits, use of unfair means of making progress and potential nervous breakdown of both students and teachers. Certainly, it can be argued that a focus on learning of knowledge, skills and dispositions, including higher order thinking skills: creativity, problem solving, analysing, imaginative thinking or conceptualising, are not valued since they are not included in these high stakes examinations. This situation is perpetuated in teacher education settings, in which the assessments are organised on a similar basis and with similar values, leading to a similar de-prioritisation of competency and higher order thinking skill development.

### **4. The role of assessment criteria**

The assessment criteria used for grading has a significant effect on learning and assessment. The focus of lower order and higher order thinking skills determine the quality of learning. UTs organise model lessons to grade PTs based on holistic grading or rating scales that have been developed by foreign Universities who have

acted as consultants to the B.ED program. PTs are generally graded on the basis of communication skills, organisation of lessons, and measurement of their theoretical knowledge of program content and pedagogical practice. This is by written examination of students which qualifies them for their B.ED (Hons) degree. Assessment criteria do not check analytical, problem solving and creative abilities of the students but rather lower order thinking and recall skills. Particularly noteworthy, there is no inclusion of assessment of the reflective skills of the PTs either during the program or as they complete it and enter into the teaching field. It has been noted from the analysis that, unlike the UK situation, the assessment criteria are not linked to Teacher Standards that have been formulated by the Higher Education Commission of Pakistan. In addition the grades can sometimes be surprising for PTs and kept in secrecy until the announcement of the results, which has led to claims of favouritism being applied to the awards given. It has been concluded that there has been no role for schools in deciding or applying these criteria.

### **5. The nature of PT assignments**

The participants of FGD 1 viewed theory based assignments and lesson plans as key assignments assessing PTs' knowledge of assessment practices. These are judged by applying traditional assessment techniques but do not value practical learning on the part of PTs. In comparison with UK practices and practices that match what is valued in Pakistan, there is a need to reformulate assignments which allow assessment beyond covering knowledge recall only to include competency based assessment and assessment of higher order thinking skills. Currently assignments are rigidly focused on the textbook and its content, rather than skills and application of knowledge. In particular they do not require reflection on the part of PTs and lack relevance to real life situations of classroom practice. PTs need to be self-evaluative and UTs and CTs need to be open minded and happy to self-evaluate their own practice, modelling this process on that of PTs. This should include the full range of teaching competencies expected in the Pakistan teacher standards, such as relationship building, professionalism and commitment to continuing professional development.

### **6. Support from cooperative teachers in learning about assessment**

The teacher educators viewed that support on the part of CTs was not something that was systematically organised into the current B.ED programme. PTs are dispatched to cooperative schools without any orientation and capacity building for the CTs. This means that they are not sensitised about the importance of their role in the professional development of PTs. In some schools PTs on practicum were seen as a chance to get some relief from the CTs' heavy teaching workload; in others, periods of practicum were seen as disruptive to the disadvantage of pupils and the school. It was revealed that there is no proper mechanism of providing guidance in planning, observing and conducting lessons by CTs. Consequently, PTs face challenges in

classroom management, delivery of content and evaluation of lessons. In addition to the lack of support for CTs and hence PTs, there is also no evaluation role expected to be performed by CTs and hence no opportunity for alignment between school and TEP elements of the B.ED programme. There is a missed opportunity for using communication technologies to maintain connections amongst PTs, CTs and UTs both for coordination of the programme and professional development of all concerned. It was also noted that, in contrast to the UK situation, there is no recognition of the services performed by the CTs in professional and financial terms, which affects their commitment.

### **7. A dialogical approach to learning about assessment**

It has been demonstrated through this study that the evidence collected supported the hypothesis that PTs found it difficult to practice the methods of teaching and assessment techniques in government school settings due to several barriers. According to UTs, large class sizes, lack of continuity practice, lack of involvement in planning sessions, limited opportunities to use technology in school settings and opportunities to expand a repertoire of no/low cost resources and insufficient time for practice are major barriers to student centred assessment techniques. The key finding was that the multiple perspectives needed to address these challenges were not brought together sufficiently to explore solutions. Those who support trainees in schools were found to have limited awareness of and therefore commitment to the aspirations of the B.Ed curriculum. What is needed is a shift from a culture of obligation to a culture of collaboration between University and school participants in initial teacher education, thus establishing a learning orientation for all involved in Pakistan.

### **8. The role of feedback**

The UTs reported that it was important to gather feedback from PTs and provide feedback to them on their understanding and use of assessment practices, but accepted that this was not regularly provided by UTs or CTs. CTs were thought to provide PTs with oral feedback on their teaching practicum but not in relation to formalised target setting or progress towards meeting the standards, as this was not something for which they had been prepared. This means that PTs do not get opportunities to identify their weaknesses and identify how they might overcome them. Feedback in respect to a progress continuum across the program, as in the UK setting, is missing. Microteaching practices were thought to be an effective technique to overcome the weaknesses in applying theory to practice in terms of practical teaching skills and an opportunity for feedback to PTs. However, it was found to be inconsistently used on the B.Ed, due to lack of confidence and training on the part of UTs. The quantitative data gathered from PTs also confirmed that the majority of the

CTs and UTs do not provide feedback opportunities, and reflection on the challenges of learning and assessment is missing (31 %; 20 %).

## CONCLUSION

This study concludes that in the Pakistani B.Ed program, PTs face difficulties in applying student centred assessment practices due to a lack of modelling in both TEP and cooperative school settings, challenges related to the large class sizes in schools, a lack of value for competences in the assessment practices and insufficient time in teaching practicum experiences. It is also concluded that an additional challenge observed that the majority of PTs on the program have not opted for the teaching profession as a primary choice and hence are facing a lack of intrinsic motivation and commitment to develop the necessary competences. These findings agree with the study conducted by Massud (2016) in the TEP offered in the Universities located in the twin cities of Rawalpindi and Islamabad. PTs enrolled in the UK setting study also faced difficulties in bridging the gap between theory and practice with reference to assessment practices. There is already a reflective journal, which has the potential to be a more powerful and valued vehicle for these reflections, in the B.ED program. A more collaborative school-university partnership model could be developed in which the professional development of PTs, CTs and UTs are considered and fulfilled together. This sees CTs and UTs as having an equal role in the support and evaluation of PTs as well as CTs, CHs and UTs all having a place in the program's development.

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